REMARKS:

The Examiner's allowance of claims 1-13 and 30-49 is gratefully acknowledged.

Reconsideration of the Examiner's rejection of claims 14, 18, 25-29, 50, 51, and 57-61 under 35 U.S.C. §103(a) as being obvious over Sandell et al. is respectfully requested.

All of the claims rejected by the Examiner recite an infrared imaging device having first and second Fresnel lens elements, wherein the second lens element has positive power. The Examiner acknowledges that Sandell et al. does not explicitly teach this element of the claimed invention. However, the Examiner argues, in essence, that this element is inherent in the device of Sandell et al., since the second "lens" in that device is being used to focus an image onto a detector. Applicant respectfully disagrees.

Applicant notes that, by definition, a lens is a device which is used to focus or diverge radiation (see the definition of the term "lens" as provided in EXHIBIT A). By contrast, the element of the device of Sandell et al. that the Examiner deems "the second lens element" (element 28) is not a lens at all (let alone a Fresnel lens), but is merely a prism array whose grooves, by definition, have the same angle. See, e.g., Col. 4, Lines 32-34: "Each of the prism arrays 26a, 26b, 26c and 26d comprises a planar infrared-transmission substrate 28, in which a series of parallel, angled grooves are formed." As seen in FIGs. 3a and 4, these elements serve to redirect incident radiation onto the window 17 of the detector, rather than to "focus" the radiation as the Examiner claims. Indeed, the fact that the grooves in these prism arrays have the same angle precludes these prism arrays from functioning as lenses, since they consequently lack the ability to either focus or diverge incident radiation.

In a related manner, it is to be noted that Sandell et al. is careful to distinguish between what it terms the "focusing means" (used in reference to the lens array) and the "refracting means" (used in reference to the prism arrays). Thus, for example, at Col. 2, Lines 31-48, Sandell et al. notes:

> The motion detector includes infrared-refracting means that are disposed with respect to the front and rear surfaces of the sensing elements so as to direct radiation to the surfaces from lateral areas on both sides of the integrated-circuit package. The infrared refracting means are positioned to leave at least a portion of the surfaces on both sides of the sensing elements unobstructed for receiving infrared radiation directed at the respective unobstructed portions from the frontal and rear regions of the field of view. A focusing means is provided to direct infrared radiation from a plurality of zones in the frontal and rear regions of the

> field of view directly to the unobstructed portions of the sensing elements and from a plurality of zones in both lateral regions of the field of view to the refracting means for refraction in the direction of the sensing elements. [emphasis added]

At Col. 4, Line 58 to Col. 5, Line 14, Sandell et al. states:

> The invention also includes a means, indicated generally at reference numeral 32, for focusing infra-red radiation from a plurality of zones in the frontal and rear regions F and R of the field of view directly toward the unobstructed portions of the sensing element: surfaces and from both lateral regions L of the field of view to the infrared-refracting means 21 and 22 for refraction to the front and rear sensing element surfaces. Focusing means 32 is provided in the embodiment of FIGS. 3 and 3A by a segmented Fresnel lens array 33 defining a plurality of individual Fresnel lenslets 34, which direct radiation from well defined spatial zones in the field of view to the sensor, either directly or via refraction through refracting means 21 or 22. Lens array 33 is in the form of a cylinder surrounding IC package 10 and infrared-refracting means 21 and 22 as may be seen in FIG. 3A. [emphasis added]

At Col. 5, Lines 15-30, Sandell et al. notes:

> The refracting prism arrays shown in FIGS. 3 and 3A are positioned close in to the IC package 10 and may have a size not much larger than the area of sensor window 17. An advantage of the close-in configuration is that the optical path of a ray of infrared radiation from a focusing element (i.e., a lenslet 34) directly to a window 17 is roughly the same, within tolerable limits, as the optical path to the window via refracting means 21 or 22. Because of this the focusing elements can be formed with the same focal length regardless of whether they focus the radiation on the sensing elements directly or via a refraction, and this allows for simpler and less expensive fabrication. Close-in configurations like this employing smaller refracting arrays are also desirable because they are generally easier to assemble and align. [emphasis added]

It is thus clear from a careful reading of the reference that the prism arrays of Sandell et al. are intended only to provide a refractive functionality, not a focusing functionality.

Applicant further notes that there is no need for the prism arrays of Sandell et al. to function as lenses, since the lens functionality is provided by the Fresnel lens array 33 in the devices disclosed therein. Thus, at Col. 4, Line 65 to Col. 5, Line, 3, Sandell et al. notes that "Focusing means 32 is provided in the embodiments of FIGs. 3 and 3A by a segmented Fresnel lens array 33". Moreover, and contrary to the Examiner's contention, there is also no need to use a second lens to "focus" the image onto the detector in the device of Sandell et al., since the

image is refracted onto the detector, without the need for focusing, by the prism arrays, the latter of which are not lenses.

As a related matter, Applicant respectfully notes that the Examiner is incorrect in asserting that the prism arrays would inherently have positive power, "since they are being focused onto the detector and could only be positive". As explained above, in the device of Sandell et al., these prism arrays are being used to redirect incident radiation to the detector, not to "focus" the incident radiation on the detector. Hence, these prism arrays do not act as lenses, and do not serve a focusing functionality. Consequently, they are not required to have a positive or negative power. Indeed, the fact that the grooves in these prism arrays have the same angle precludes them from having positive or negative power.

As a further matter, Applicant also notes that the Examiner's interpretation of the prism arrays of Sandell et al. as Fresnel lenses is at odds with Sandell et al. itself. In particular, Sandell et al. does not refer to the prism arrays disclosed therein as Fresnel lenses. However, Sandell et al. does refer to element 33 of the device disclosed therein as a "segmented Fresnel lens array", and to element 34 as "a plurality of Fresnel lenslets". Clearly, if the reference had intended the prism arrays to be Fresnel lenses, it would have denoted them as such, since the other Fresnel lenses in the device are all duly noted.

For the sake of completeness, Applicant acknowledges that Sandell et al. concludes with some language that states that:

> [T]hose skilled in the art will appreciate that various modifications, alternate constructions, and equivalents may also be employed to achieve the advantages of the invention. For example, although the refractive arrays 26a, 26b, 27a, 27b illustrated here are formed with uniform grooves 29 having uniform slope, they may also be formed with a range of different slopes for refracting incident radiation through different angles depending upon the precise location where the radiation impinges on the array substrate. Various other configurations of refractive elements may also occur to those skilled in motion detector optics.

Applicant acknowledges that it might be possible to create a prism array in accordance with this verbiage that has positive power, as by utilizing grooves having particular slopes arranged in specific patterns. However, it is also to be noted that a large number of prism arrays could also be created in accordance with this verbiage that have grooves with different slopes and that do not have positive power. For example, a prism array of this type could be constructed in which the grooves in different regions of the device have different slopes, but wherein the grooves

within a particular region all have the same slope. This type of prism array could be used, for example, to redirect incident radiation to any of a plurality of different detectors, depending on where the incident radiation is coming from. Notably, however, such a prism array would not necessarily be a lens, nor would it necessarily have positive power. A wide variety of prism arrays could also possibly be constructed that would have negative power, and yet would refract incident radiation through different angles depending upon the precise location where the radiation impinges on the array substrate. Again, such a prism array would not have positive power. It will thus be appreciated that there is no suggestion in Sandell et al. to make the prism arrays described therein as lenses, nor is there any reason to do so in the context of the device described therein.

In light of the above, it thus cannot be said that prism arrays having positive power are in any way inherent in the teachings of Sandell et al. Here, the Examiner is respectfully reminded of the extremely high showing required to establish inherency as set forth in M.P.E.P. § 2112(IV):

> The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. ... "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.'"

Hence, in the present case, even if it could be argued that it would be possible for the prism arrays of Sandell et al. to have positive power, this would be insufficient to establish a case of inherency since, as shown above, it is not necessary for the prism arrays to have positive power.

The Commissioner is hereby authorized to charge any fees due with this response (or to credit any overpayment) to the deposit account of Fortkort Grether + Kelton LLP, Deposit Account No. 50-2726.

Respectfully submitted,

FORTKORT GRETHER + KELTON LLP

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By: _____

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